IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) ~~In~~ A method for detecting vibrations in a disc drive apparatus ~~of a type comprising:~~ having radially displaceable scan means, ~~comprising:~~

~~—~~ with a sledge radially displaceable with respect to an apparatus frame;

~~—~~ and a platform radially displaceable with respect to said sledge;

~~a method for detecting vibrations,~~ the method comprising the ~~step~~ act of detecting a radial displacement of said platform with respect to said sledge.

2. (Currently amended) ~~A~~ The method according to claim 1, ~~for use in a disc drive apparatus comprising an electromagnetic device~~

~~in an actuator for displacing said platform with respect to said sledge, the method~~ further comprising the ~~step~~ act of detecting a back-EMF in ~~said~~ an electromagnetic device of the disc drive apparatus in an actuator for displacing said platform with respect to said sledge.

3.(Currently amended) ~~A~~ The method according to claim 1, ~~for use in a disc drive apparatus comprising an optical system for scanning a disc, the optical system defining an optical path which is substantially fixed with respect to the sledge and comprising an optical element which is fixed with respect to the platform,~~

~~the method~~ further comprising the ~~step~~ act of detecting an optical read signal from a detector of the disc drive apparatus and deriving therefrom an X-displacement signal.

4.(Currently amended) ~~A~~ The method according to ~~claim 2~~ claim 1, further comprising the acts of: ~~wherein~~

activating an actuator ~~is activated~~ such as to counteract a the radial displacement of said platform with respect to said sledge; and

~~the method comprising the step of~~ detecting an actuator control signal.

5. (Currently amended) ~~Method~~ The method according to claim 3, further comprising the ~~step~~ act of filtering said X-displacement signal ~~or said actuator control signal, respectively,~~ in association to a disc rotation frequency.

6. (Currently amended) ~~Method~~ The method according to claim 3, further comprising the ~~step~~ act of providing a rectified X-displacement signal ~~or rectified actuator control signal, respectively,~~ indicating ~~the~~ amplitude of said X-displacement signal ~~or said actuator control signal, respectively~~.

7. (Currently amended) ~~Method~~ The method according to claim 1, wherein the sledge is kept pressed against a frame or a stop fixed to said frame.

8. (Currently amended) ~~Method~~ The method of ~~setting a rotational speed of a disc drive apparatus~~ claim 1, further

comprising the ~~steps~~ acts of:

selecting an initial rotational speed;

detecting ~~any~~ a vibration ~~with a method according to any of the previous claims~~;

increasing the initial rotational speed if the detected vibration is below an acceptability level;

decreasing the initial rotational speed to a previous acceptable rotational speed if the detected vibration is above an acceptability level.

9. (Currently amended) ~~Disc~~ A disc drive apparatus, comprising:

rotating means for rotating a disc;

radially displaceable scan means~~, comprising:~~

~~—~~ including a sledge radially displaceable with respect to an apparatus ~~frame;~~

~~—a~~ frame and a platform radially displaceable with respect to said sledge; and

~~said apparatus further comprising:~~

[[-]] vibration detection means for detecting vibrations

caused by the rotating disc;

[[-]] said vibration detection means comprising radial displacement detection means for detecting a radial displacement of said platform with respect to said sledge.

10. (Currently amended) ~~Apparatus~~ The apparatus according to claim 9, further comprising:

an electro-motive platform actuator for displacing said platform with respect to said sledge;

wherein said radial displacement detection means are designed to detect a back-EMF in said electro-motive platform actuator.

11. (Currently amended) ~~Apparatus~~ The apparatus according to claim 9, further comprising:

an optical system for scanning a disc, the optical system defining an optical path which is substantially fixed with respect to the sledge and comprising an optical element which is fixed with respect to the platform;

wherein said radial displacement detection means are designed to detect an optical read signal and to derive therefrom an X-

displacement signal.

12. (Currently amended) ~~Apparatus~~ The apparatus according to claim 9, further comprising:

an actuator for exerting a radial force on said platform with respect to said sledge; and

a control unit generating an actuator control signal for activating said actuator such as to effectively counteract ~~a~~ the radial displacement of said platform with respect to said sledge~~,~~

~~the method comprising the step of detecting said actuator control signal~~.

13. (Currently amended) ~~Apparatus~~ The apparatus according to ~~claim 10~~ claim 9, further comprising an adaptable filter means having an input receiving a detector output signal ~~or said actuator control signal, respectively~~; the adaptable filter means further having a command input coupled to receive a signal representing the rotation frequency of said ~~DISK~~ disc to adapt said adaptable filter means, and having an output for providing a filtered detector signal.

14. (Currently amended) ~~Apparatus~~ The apparatus according to ~~claim 10~~ claim 11, further comprising a converter ~~having an input coupled to receive a (filtered) detector signal or said actuator control signal, respectively, and having an output for providing a rectified detector signal~~ configured to rectify said X-displacement signal.

15. (Currently amended) ~~Apparatus~~ The apparatus according to claim 9, further comprising a control unit for controlling said rotating means;

said control unit being responsive to said radial displacement detection means to reduce ~~the~~ speed of said rotating means when said radial displacement detection means indicates that said platform vibrates with respect to said sledge ~~with too large an amplitude~~ in excess of a threshold.

16. (Currently amended) ~~Apparatus~~ The apparatus according to ~~claim 1~~ claim 15, wherein said control unit is designed, in an initializing phase, to set the rotation speed of the rotating means

at an initial value;

to check the amplitude of any vibration of the platform with respect to the sledge;

to increase said rotational speed if the intensity of the detected vibration is below an acceptability level;

to decrease said rotational speed to a previous acceptable rotational speed if the intensity of the detected vibration is above an acceptability level;

to set the operational rotational speed of said rotating means to be equal to said previous acceptable rotational speed or, if no unacceptable vibration is detected, to be equal to the maximum rotational speed of the apparatus.

17. (Currently amended) ~~Apparatus~~ The apparatus according to claim 16, wherein said control unit is designed to control a radial sledge actuator such as to keep the sledge pressed firmly against the apparatus frame or a stop fixed to said apparatus frame.

18. (New) The method of claim 3, further comprising the act of providing a rectified actuator control signal indicating amplitude

of said X-displacement signal.

19. (New) The method of claim 5, further comprising the act of providing a command signal to a filter that is configured to perform filtering act, said command signal representing said disc rotation frequency.

20. (New) The apparatus of claim 12, further comprising a converter configured to rectify said actuator control signal.